

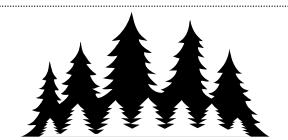


Northwoods Journal – June 2009

Enjoying and Protecting Marinette County's Outdoor Life

<u>In</u>	This	Issue:

2008 LWCD Accomplishments	1		
Rural Landowner's Conference			
Who you Gonna Call?			
Lake Monitoring Workshop			
Free Parks Day			
Clean Boats, Clean Waters Workshop			
Wildfire Prevention			
On the Lakefront: Aquatic Plants			
Where in Marinette County?			
Invasive Species Awareness Month			
Sand Lake Conservation Camp	6		
Morgan County Park Update	6		
Critters We Love to Hate: Leeches 7			
Area Events Calendar	8		
Harmony Arboretum Calendar			
Children's Garden at Harmony			
Harmony Bird Hike			



Rural Landowner's Conference

Mark Saturday, September 19, 2009 on your calendar for the inaugural Rural Landowners' Conference, and plan on attending! This event is being held at the Crivitz High School and will feature a wide array of topics guaranteed to interest all members of the family.

Northwoods Journal readers will be getting advance information over the course of the summer regarding the exact plans for this event. We already have a number of speakers committed to being on hand to share information, ideas, and techniques that will help you better manage your land. Although exact topics are still being finalized, information to be presented will include forest management; wildlife habitat enhancement; agricultural opportunities; landscape management; invasive species; legal issues; and home food production.

Do you have a question regarding your property that you think would make a great presentation or display topic? If so, please contact us and give us your ideas, as we can hopefully find a good presenter and still get that concept onto the program. Contact Greg Cleereman, LWCD, at 715-732-7780 or Scott Reuss, UWEX, at 715-732-7510.

Land & Water Conservation Division 2008 Accomplishments By Greg Cleereman, County Conservationist

2008 was another interesting and busy year for the Land & Water Conservation Division (LWCD). The LWCD is part of the Marinette County Land Information Department. Staff includes the:

County Conservationist that directs and manages division activities

Conservation Technician that provides technical assistance to farmers working to protect water quality from runoff pollution

Water Resources Specialist that deals primarily with lake and stream water quality protection

Education Specialist that provides general environmental education as well as promotion of other departmental programs

Aquatic Invasive Species Coordinator to expand and enhance efforts to control and/or prevent infestations

Wildlife Damage Coordinator that administers a WDNR funded program to minimize crop damage from wildlife and reimburse farmers for crop damage that does occur

Program Assistant that helps all of the other staff and performs office duties

This article will give you a sense of how the LWCD works on residents' behalf and describes some of the services we provide. All LWCD staff work in other areas and do more than what is described below – it is meant to be a general overview of the LWCD and highlights major program areas that might be most interesting to our readers.

Agricultural Runoff Pollution

Ending winter spreading of manure has long been the focus of the LWCD. The majority of fish kills and contaminated wells around the state in recent years have occurred during winter warm spells or during the spring thaw when manure, spread on snow covered or frozen ground, reaches groundwater or lakes and streams. To avoid winter spreading, the LWCD competes for State grant funds to cost share with farmers that voluntarily install best management practices (BMP's) such as manure storage facilities and barnyard runoff control. Having a properly sized manure storage facility allows the farmer to spread manure at times (late spring and fall) when it can be injected into the soil or quickly plowed

In 2008, the LWCD provided cost sharing (from state programs), practice design, and installation supervision to twelve cooperating landowners that installed:

7 Manure Storage Facilities

6 Barnyard Runoff Control Systems

5 Milking Center Waste Control Systems

7 Manure Transfer Systems

1,400 acres of Nutrient Management Planning

325 acres of Cropland Protection Cover

Completion of these projects ends winter spreading of manure on 5,878 acres and brings the total area of Marinette County no longer winter spread with manure to more than 31,000 acres. More than \$928,000 in cost sharing was obtained in 2008 for Marinette County farmers, providing a significant stimulus to the local agriculture economy. These projects also leveraged additional Federal cost sharing as well.

Lakes and Streams

Research from across the United States has shown that members of Lake Associations and Districts make land use decisions that are more environmentally friendly than other riparian landowners. LWCD staff members have a long history of providing technical assistance, capacity building, and facilitation help to County Lake Associations and Districts. In 2008 the LWCD provided 16 lake groups with a newsletter called *Notes from the Shore*. It contains general lake information, news, and research that complement lake-specific content written by Lake Group membership.



We continued to implement an extensive countywide Lake Classification Project funded by WDNR. In 2008 the major activities under the grant were a research effort to monitor long-term impacts of residential shoreline development (on birds, vegetation, etc.), gather baseline water quality data, and expand Citizen Lake monitoring efforts.

A long-term pollution control effort at Bass Lake (in the Town of Beaver) culminated last year with water quality monitoring to support taking the lake off the Federal 303(d) list of Impaired Waters. The monitoring validated the success of the efforts of the landowners in the watershed and LWCD to improve water quality. Other major surface water projects were:

Creating a Comprehensive Management Plan for Lake Noquebay under a WDNR grant

Developing an Aquatic Plant Management Plan for McCaslin Lake under a grant from the WDNR

Installing shoreline habitat restorations at Lake Noquebay, Beecher Lake (2), and Big Newton Lake

Environmental Education

The original rationale for the LWCD environmental education programming was provided by a Senegalese ecologist who said, "In the end we will conserve only what we

Continued on page 3

Who You Gonna Call?

Spotlighting natural resource and conservation professionals in Marinette County so you know whom to call with your questions or concerns.



Robert Ruleau IV, Aquatic Invasive Species Coordinator 1926 Hall Ave., Marinette WI 54143 Phone: (715) 732-7642 Email: rruleau@marinettecounty.com

Robert Ruleau IV recently joined the Marinette County LWCD as the new Aquatic Invasive Species Coordinator to help prevent the spread of aquatic invasive species (AIS) in our lakes and waterways. AIS are non-native species whose introduction into aquatic ecosystems causes economic, recreational, and environmental harm. Robert's duties will include investigating AIS infestations, assisting and educating the public about AIS issues, coordinating volunteers and conducting trainings for the Clean Boats, Clean Waters program, writing grants for AIS related projects, and collecting & researching AIS data. The LWCD received grant funding from the DNR for this position. The son of Robert Ruleau III and Bonnie Ruleau of Menominee, Robert graduated from Menominee High School in 2001, Northern Michigan University in 2005, and recently studied and graduated with a Marine Science and Management degree from Australia.

What is the status of AIS in Marinette County?

Fortunately, there were relatively few new (reported) incidents of AIS for waters in Marinette County last year. Unfortunately, a few of the usual invasive suspects are still present in some of our lakes and waterways. Eurasian water milfoil (EWM) is the most prevalent invasive plant in the county with 16 known water bodies infested. Last year the LWCD and lakefront property owners conducted control efforts on a few different lakes through a DNR rapid response and control grant. We will monitor those lakes again this spring. Hydrilla, one of the most invasive aquatic plants in the country was found in a private pond in Marinette County in 2007, but quick response and eradication efforts by the landowner, the DNR, and the LWCD seem to have paid off in fully eradicating it. We will be monitoring and surveying water bodies in close proximity to the infested pond to make sure hydrilla has not spread. Zebra mussels, curly leaf pondweed, rusty crayfish and Chinese mystery snails are some of the more problematic AIS present in Marinette County, and we will work hard to prevent their spread to unaffected waters.

What are some projects you are currently working on?

Some important projects we will be working on this summer include the control and eradication of the aggressive and fast spreading Phragmites grasses along the shoreline of Green Bay. The area these grasses have taken over is large-scale and lots of time, effort and collaboration with landowners will be needed to try and control and eradicate this invasive plant. Also, we will be focusing a lot on preventing and limiting the spread of various AIS from infested lakes to those that are free of invasives. We need to monitor those lakes that contain AIS to prevent their spread to non-infested neighboring lakes. This will include building an important base of dedicated volunteers to help educate lake users and to perform boat checks at landings to ensure they are free of invasive plants and animals. We want to get the word out about different AIS that may be hitchhiking on lake users' equipment such as boats, trailers and waters contained in the boats. It should be a productive and fun summer.

How are Marinette County's lakes and streams monitored and how will you use the data to help fight AIS?

Volunteers and their dedicated work are a vital part of monitoring our waters. There are a few different methods of monitoring and a big part of my job will be to coordinate individuals in monitoring for AIS using

different techniques depending on the situation. There are two main types of monitoring for AIS: prevention monitoring and established population monitoring. If a lake is known to be free of AIS, volunteer monitors can do checks and report if there are any new invasives found, or not found. When there is a known established population of AIS in a lake, monitoring efforts and data collected are used to track the spread of a particular invasive species in that lake. Data gathered by both monitoring methods help to put together useful information such as maps, charts and graphs detailing the extent of the AIS problem in Marinette County. This information will help us identify which invasives pose the greatest problems and what prevention and control efforts are needed.

How can citizens become involved in water monitoring activities?

We are hosting two important AIS workshops: Clean Boats, Clean Waters (CBCW) Volunteer Watercraft Inspection and the Citizen Lake Monitoring Network workshop. These training sessions will be held to educate volunteers and citizens on how to directly get involved and how to properly identify, detect and respond to AIS issues. If you want to get involved with AIS, or just want to learn more about invasive species please make it a point to attend these informative workshops. We are always looking for dedicated volunteers to help us fight the spread of aquatic invasive species. If you are interested, please contact me at the LWCD. The dates and locations of the workshops are listed below:

Clean Boats, Clean Waters Volunteer Watercraft Inspection Workshop Saturday May 30, 2009 from 9:00 am – 12:00 pm at the Stephenson Town Hall, W11280 County Hwy. X, Crivitz, WI

Citizen Lake Monitoring Network Workshop
Thursday June 4, 2009, from 6:00 pm – 9:00 pm at the Stephenson
Town Hall

What special events, programs, and resources are available to the public to help them learn more about AIS topics or issues?

Along with the annual workshops that are mentioned above, there is a wealth of AIS information online. A few helpful sites are:

- UWEX Environmental Resource Center and AIS Education Handbook www.uwex.edu/erc/AqualnvHandbook.html
- Wisconsin DNR Aquatic Invasive Species Program dnr.wi.gov/invasives/aquatic/
- AIS Guide for Proactive and Reactive Management www.dnr.state.wi.us/org/caer/cfa/grants/Forms/aisguidevc06.pdf.

We have lots of AIS and other conservation education resources here at the Marinette County LWCD, so feel free to stop in and check them out. If we don't have the resources you are looking for, we can certainly point you in the right direction. Learning more about AIS issues is the first step in preventing their introduction and spread in the waters of Marinette County.

Marinette County has more than 400 lakes and flowages and 1,200 miles of streams which bring in more than \$113,000,000 annually. Unfortunately, the spread of AIS threatens this important natural resource. To learn more about AIS, visit the Wisconsin DNR website at www.dnr.state.wi.us/invasives/, or the Land Information Department on Marinette County's website at www.marinettecounty.com.

Northwoods Journal

Volume 7, Issue 1

The *Northwoods Journal* focuses on various outdoor recreation opportunities and local environmental topics to inform readers about natural resource use, management, and recreation in Marinette County.

Published in cooperation by:

- Marinette County Land & Water Conservation Division
- Marinette County Parks & Outdoor Recreation Department
- University of Wisconsin-Extension

UW-Extension provides equal opportunities in employment and programming, including Title IX and ADA. To ensure equal access, please make requests for reasonable accommodations as soon as possible prior to the scheduled program. If you need this material in another format, please contact the UW-Extension office at 715-732-7510.

Please send comments to:
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awarren@marinettecounty.com



LWCD Accomplishments, continued from page 1

love. We will love only what we understand. We will understand only what we are taught." More recently, Richard Louv's book Last Child in the Woods – Saving Our Children from Nature Deficit Disorder led to expansion and refocusing of our efforts. Last Child in the Woods brought together a new and growing body of research indicating that direct exposure to nature is essential for healthy childhood development and for the physical and emotional health of children and adults.



Studying aquatic organisms to determine water quality.

On Earth Day 2009, Senator Jack Reed (RI) and Congressman John Sorbannes (MD) introduced the Federal *No Child Left Inside* Act. This bill authorizes new funding for states to provide high-quality, environmental instruction and supporting outdoor learning activities. If the bill passes it will help the rest of the country catch up with Marinette County.

Our programs have sought to help people understand and appreciate nature, in part through exposing them to outdoor activities and natural wonders. Last year we delivered 183 Teaching Outdoor Awareness & Discovery (TOAD) programs to more than 4,200 individuals. The core of the TOAD program is a trailer, containing many different kinds of equipment for studying nature, that LWCD staff can bring to any location chosen by a teacher, scout leader, etc. TOAD programs have been delivered to schools in every Marinette County school district, as well as many other community groups. Having one full set of equipment, available to all schools, instead of partial sets at multiple schools is a much better use of limited funds. TOAD programs are free to the public and offered year-round. Education highlights in 2008 included:

- © Earth Day presentations to 179 people
- Helped teach canoeing and kayaking skills to 204 5th- 6th graders at Peshtigo Elementary
- Held the 3rd annual Sand Lake Conservation Camp for 82 6th-8th graders, who learned about conservation concepts & outdoor skills
- Held four Environmental Field Days for 488
 4th Graders, where students learned about 8 different conservation topics
- © Led four Peshtigo River Canoe Trips
- © Provided an extensive display at the Marinette County Fair promoting natural shoreline

Northwoods Journal Online

Would you like to read current issues of the *Northwoods Journal* online? Go to www.marinettecounty.com and click on the link at the bottom of the page. We can even send you an e-mail reminder when each new issue is posted on our website. Please contact Anne Warren at awarren@marinettecounty.com or call 715-732-7784 for more information.

featuring live reptiles, amphibians, fish, and aquatic insects, and was visited by 2,060 people

- © 166 students, from grades K through 12, participated in the Wisconsin Land and Water Conservation Association Environmental Poster Contest
- © Completed our 4th year of offering the *Northwoods Journal* at local businesses. About 5000 FREE papers were distributed each month from June through September

Aquatic Invasive Species

For more than fifteen years, the LWCD has worked with lake groups, concerned landowners, and government agencies to prevent the infestation and spread of aquatic invasive species (AIS), especially Eurasian Water Milfoil and Purple Loosestrife. In the last couple years, species like the Giant Reed (phragmites) have exploded in the County. Thirty-one Marinette water bodies are now known to contain exotic species.

In 2007, Hydrilla, a plant called by some experts, "the worlds worst weed" made its first Wisconsin appearance in a private pond right here in Marinette County. States like Florida and Indiana spend millions of dollars each year and have actually closed lakes to control this plant and limit its spread. In 2008, LWCD staff worked with the WDNR to eradicate Hydrilla from the pond and performed reconnaissance to make sure it had not spread. The reconnaissance effort will continue in 2009

LWCD staff implemented a number of other AIS control projects on County Lakes, including:

- Controlling Eurasian Water Milfoil at Little Newton Lake under an Aquatic Invasive Species Rapid Response Grant from WDNR
- Providing AIS education, prevention, and planning help to Beecher Lake under a grant from WDNR
- Developing applications for three Marinette County lake groups and one municipality to control AIS
- Holding a Clean Boats Clean Waters workshop and a workshop for citizen monitoring of AIS

LWCD staff also successfully applied for a WDNR Aquatic Invasive Species Coordinator Grant to improve control of existing AIS infestations and to prevent future infestations (see page 2, "Who You Gonna Call?").



Hydrilla eradication project in a private landowner's pond.

Wildlife Damage and Abatement Program

The LWCD administers a WDNR program to reimburse participating farmers for damage from wildlife such as White-tailed Deer, Black Bear, and Eastern Turkeys. The program is funded by part of deer hunting license fees and bonus permit sales. For many years Marinette County has had some of the highest rates of crop damage by deer in Wisconsin. The program also provides hunters access to agricultural lands during regular hunting seasons for which the participating farmer received crop damage reimbursement. Farmers that just want to defend their crops without receiving reimbursement can apply for shooting permits to harvest a portion of the animals that are causing damage. For high value crops, landowners can apply for cost sharing for abatement practices, including wildlife-proof fencing. Wildlife Damage program highlights included:

55 farms participated in the program, 46 of which received reimbursement for crop damage

Approximately 10,177 acres were appraised for damage

Approximately 6,420 acres were opened to public hunting

The main grops appraised were alfalfa and

The main crops appraised were alfalfa and corn

Marinette County had more crop acres damaged than any other county in Wisconsin

An adjunct to the Wildlife Damage Program is the Hunt for the Hungry Program, which pays the processing costs of deer that are donated by hunters. The resulting ground venison is given to local food pantries for distribution to those in need. In 2008, 117 deer were donated, resulting in approximately 4,600 pounds of ground venison.

If you would like to participate in one of the Marinette County programs, need help with something not described above, or simply would like more information, just contact our office in the County Courthouse at 715-732-7780.

Citizen Lake Monitoring Workshop

Thursday June 4, 2009 6:00 pm – 9:00 pm Stephenson Town Hall, W11280 County Hwy. X, Crivitz, WI

The first response to the threat of aquatic invasive species is prevention. When this doesn't work, early detection and rapid response offer the best hope for successful control or eradication. In recent years, our lakes have come under attack from several aquatic invasive species including Zebra Mussels, Eurasian Water Milfoil, and Hydrilla one of the worst exotic lake plants in the country. To help in this fight, the Marinette County Land & Water Conservation Division is sponsoring the Citizen Lake Monitoring Network Aquatic Invasive Species Monitoring Workshop.



Workshop presenters will provide details on invasive species identification, organizing an effective monitoring team, where and when to look for invasive species, and what to do if you suspect that you have found an invasive plant or animal. Participants will learn to identify and monitor the following invasives: Eurasian water milfoil, curly-leaf pondweed, purple loosestrife, hydrilla, rusty crayfish, zebra mussels, Chinese and banded mystery snails, spiny and fishhook waterfleas, and freshwater jellyfish. The workshop includes a free monitoring kit (one free kit per lake). Additional kits may be purchased at a cost of \$65 (basic kit) to \$165 (advanced). Early registration is required!

Please contact Marinette County AIS Coordinator, Robert Ruleau at 715-732-7642 or Marinette County Land & Water Conservation Division at 715-732-7780 to sign up for the workshop. For more information, contact Laura Herman, Citizen Lake Monitoring Network Coordinator, 715-365-8998 or laura.herman@uwsp.edu.



Clean Boats, Clean Waters Workshop: Stopping the spread of aquatic invasive species...how you can help!

Saturday May 30, 2009 9:00 am – 12:00 pm Stephenson Town Hall, W11280 County Hwy. X, Crivitz, WI

With the growing concern over the spread of aquatic invasive species in Marinette County, many lake association members and concerned citizens are looking for ways to get involved. The Clean Boats, Clean Waters volunteer watercraft inspection program assists Wisconsin residents in stopping the spread of aquatic invasive species. The Wisconsin Lakes Partnership is offering training and resource kits to be used by volunteers at boat landings. The resource kit aids volunteers in educating boaters about aquatic invasive species, how they travel from lake to lake, and what can be done to prevent their spread. Additionally, these materials help volunteers establish a volunteer watercraft inspection program for their lake. This program is an opportunity for volunteers to take a frontline defense against aquatic invasive species. The Clean Boats, Clean Waters inspection program encourages boaters to take preventive measures to help stop the spread of invasives from lake to lake.

This workshop is one of a series of opportunities to receive training before the summer of 2009. Workshops are open to adults and youth. Adults or lake associations interested in participating and receiving a handbook and resource kit are strongly encouraged to work with a local youth partner. The workshop is free but a resource kit is available for \$25.00. The resource kit includes a handbook, watercraft inspection checklists, and educational materials to distribute to boaters. Early registration is required!

Please contact Marinette County AIS Coordinator, Robert Ruleau at 715-732-7642 or Marinette County Land and Water Conservation Division at 715-732-7780 to sign up for the workshop. For more information contact Erin Henegar, Aquatic Invasive Species Volunteer Coordinator, UW-Extension Lakes at 715-346-4978 or erin.henegar@uwsp.edu.



Wisconsin Wildfires: Preventing Home Ignitions

Jolene Ackerman, WI DNR Wildland-Urban Interface Specialist

Fire is part of the natural cycle of life. Nearly every ecosystem on the globe has been influenced by fire in some way. Wisconsin has many ecosystems that are dependent on fire for their health and perpetuity. Prior to human settlement in Wisconsin, lightning-caused fire influenced the make-up of forests. As European settlements spread across the nation, fire was viewed as a menace and was extinguished whenever possible. Vegetative "fuel" proliferated, resulting in forests overdue for their cleansing and left in a condition ready to burn more intensely than that to which they were historically adapted.

For most of the 20th century, the majority of housing was concentrated in urban areas. The later part of the century saw people moving to the outer fringe of cities, areas known as the suburbs. For the last 20 to 30 years, housing development has moved deeper into formally rural areas, sometimes in clusters and sometimes as scattered individual homes. In addition, affluence of recent generations has allowed people to vacation more and purchase seasonal homes. All this development in former agricultural, grassland, marshland, and forested areas is a natural resource management nightmare. For those involved in wildfire control, the addition of homes in these areas seriously changes the dynamics of suppression efforts.

Today, lightning is a very minor cause of wildfire starts in the state. People now cause over 90% of wildfires, with some estimates being closer to 98%. At the turn of the 20th century, people intentionally started wildfires to clear land for agriculture or settlement or to reduce logging slash. As tracks were laid across the state, railroads took over the number one cause of wildfire starts. By 1980, debris burning transitioned into the main cause of wildfires and remains so today.

The combination of people starting wildfires and people living in fire-prone areas puts human life and property at risk. Every year people are injured as they try to suppress fires they inadvertently started. Occasionally people suffer serious burns, heat stress, or heart attacks during these efforts. Sometimes people die. Each year dozens of structures are destroyed and hundreds more are threatened by wildfires. During March and April of this year, 680 wildfires burned 2,245 acres. Nine citizens and firefighters were injured and one pilot died during these wildfires. Fifty buildings were destroyed and 416 others were threatened, yet ultimately saved due to firefighter efforts. And that's just 2 months of the year!

The bottom line is that fire is inevitable. It's not a matter *if* a fire will occur, but *when*. With that knowledge, the task at hand is teaching residents and visitors of wildland-urban interface areas ways to live without starting a wildfire and being able to survive a wildfire when one occurs.

Stay tuned. Next month you'll learn ways to prepare your property for wildfire. For more information now, please visit dnr.wi.gov/forestry/fire or firewise.org.

FREE PARKS DAY!

All Marinette County Parks, boat landings and day use areas will have free admission on **Saturday, June 7, 2009**. (Camping fees still apply.) Come and enjoy the natural scenic beauty of our county.

The County Parks & Outdoor Recreation Department operates eleven, large "developed" parks, six small "day use" parks/waysides, seven boat landings and a youth camp. We also provide information on recreational opportunities, such as snowmobile/ATV trail systems, hiking trails, touring the waterfalls on County Forest land, etc.

Marinette County's self-guided "Waterfalls Tour" provides a fun, family-friendly way to get back to nature. Also families or individuals can enjoy ATVing, snowmobiling, hiking, biking, canoe and kayaking, hunting, fishing, and even whitewater rafting! There are 22 County Park properties to explore. Here are just a few of the county parks you can visit:

Long Slide Falls Park (40 Acres) is a small county park surrounded by thousands of acres of Marinette County Forest. A chance to see Long Slide Falls is, of course, the main draw to this park. A good parking area is provided with access to the waterfalls which is roughly a one-quarter-mile hike in off the road. The Falls drop about 50 feet through the rocks. It's a magnificent scene! Take Morgan Park east of Highway 141 and follow the signs to Long Slide Road. From Long Slide Falls, you may want to travel a couple of miles east to Morgan Park for camping, swimming and picnicking.

Morgan Park (160 Acres) provides a campground with electricity for each site, swimming and beach on Timm's Lake, a lodge, lake and stream fishing, boat landing, playground, rock outcroppings and an overlook. There is a 32-unit campsite on Timm's Lake in the Town of Niagara. Turn east on County Rd R (Kremlin Road) from US-141 on north edge of Pembine, follow County Rd R (Kremlin Road) 6 miles, then north 1 mile on Timm's Lake Road. A small youth group campsite is available by reservation.

12-Foot Falls Park (160 Acres) features a waterfall, picnic area, rustic camping, trout fishing and scenery. Has an 11-unit campground. Many other waterfalls and walking trails are in the area. Located in the Town of Dunbar on the North Branch of the Pike River. Follow Lily Lake Road south off Hwy 8, Twin Lake Road west, and Twelve Foot Falls Road south.

Goodman Park (240 Acres) provides trout fishing, a bridge over Strong Falls, huge red pines, two lodges for day use rental, a hiking-skiing trail, camping, and lovely scenery. 15-unit campsite on the Peshtigo River in the Town of Silver Cliff. A small group campsite is available by reservation. Go west from US-141 at Wausaukee on County Highway C for 20 miles, then north 9 miles on Parkway Road, then northwest 2 miles on Goodman Park Road.

McClintock Park (320 Acres) includes three bridges over McClintock Falls, picnic area, camping, trout fishing, and an interesting hardwood-hemlock stand. Holds 10 campsites on the Peshtigo River in the Town of Silver Cliff. Located north of Veteran's Memorial Park on Parkway Road.

If you would like to continue visiting our beautiful parks throughout the summer, a \$3 entrance fee is charged at the gate. Otherwise, a \$12 annual park sticker can be obtained from the Parks Department.

For more information about Marinette County Parks, please call (715) 732-7530, or visit: www.marinettecounty.com





On the Lakefront - The Value of Aquatic Plants

By Chuck Druckrey, Water Resource Specialist

Few things are as misunderstood, or maligned, as aquatic plants. Many of the same people who spend their holidays appreciating the beauty of our northern forests or spend countless hours tending to their lawns and gardens look at plants growing in the lake and dismiss them as "weeds". Of course the Webster Dictionary defines a weed as "a plant that is not valued where it is growing and is usually of vigorous growth" or "an aquatic plant"! So while you may be grammatically correct in calling them weeds, aquatic plants are an important and necessary part of a lake ecosystem and should be highly valued.



Aquatic plants in a lake are no less important than trees in the forest. They provide the "structure" in an otherwise empty space. On land, a vast sandy plain free of plants is a desert, a place with severe growing conditions where few plants or animals can survive. In a lake a vast sandy plain, while great for swimming, is for all practical purposes a 'desert' as well. While fish can survive in this environment, they cannot thrive and reproduce. The water by itself does not provide fish habitat any more than air provides deer habitat. For a lake to be hospitable to fish, waterfowl, and all the other wildlife that attracts us to lakes, it needs to have aquatic plants.

At the most basic levels, most of the aquatic insects and zooplankton that form the base of the aquatic food web live on and among aquatic plants, where they feed on the plants themselves or on attached algae. Most fish species feed on these insects and zooplankton during their first year of life and many species, such as bluegill and other sunfish, depend on them for their entire lives.

Fish such as perch and northern pike deposit their eggs directly on vegetation, while many of the nest-building fish prefer to construct their nests near the cover of vegetation. Immediately upon hatching, most young fish move into very shallow water with abundant plant cover where they can escape predators. Here the plants also help warm the water by slowing water exchange with cooler deep-water areas. Of course, the large predatory fish that we like to catch such as bass, pike, walleye and even larger panfish all relate to aquatic plants because that's where their prey is hiding. Many of these fish lie in wait then ambush smaller fish, or your lure, as they swim past. That's why edges and openings in plant beds are such good spots to fish.

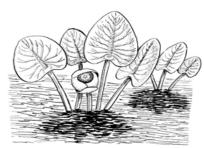


Northern Pike

Even if you never pick up a fishing pole, you should value aquatic plants since they play a

critical role in the nutrient cycle of lakes. The water in a lake and the sediment underlying it contain nutrients - and where there are nutrients, plants will grow! The only question is what kind of plants. Given the choice, most folks prefer a lake with clear water and abundant rooted plants than one clouded by blue-green algae and looking like pea soup. Also, like the terrestrial plants that surround us every day, aquatic plants can be beautiful in their own right. While most people can appreciate the graceful lines of bulrushes rising from the water or the beauty of water lily flowers resting on the surface, the world below remains a mystery. To explore the world of aquatic plants you need to stop the boat and allow the water to settle - better yet, grab a swim mask and get wet! Under the surface you will see a fantastic array of plants growing in their own underwater forest.

In shallow water you will often find emergent plants that send flower stalks above the surface or miniature aquatic plants anchored to the sand, often resembling underwater grass. In some lakes water lilies and other floating-leaf plants dominate the shallow water. From above these lily beds look impenetrable, but when seen from below you will find abundant open water with a forest of stems that seem to support the leafy green roof overhead. In this narrow band where the land and water meet, frogs, turtles and other amphibians abound. Many of the inhabitants of this zone feed on flying insects, or range away from the shore to find terrestrial prey.



Spatterdock or Pond Lily

Explore a little deeper and you might see thick ropes of coontail or milfoil snaking through the water column or small pondweeds intertwined and branch so much you can't tell where one plant stops and the other begins. These are the shrubs of this underwater forest and at these moderate depths we often see the greatest diversity of plants. Here dragonfly nymphs blend into the vegetation as they wait for smaller insects or even fish to wander into range of their grasping jaws. Their camouflage is designed not only to fool their prey, but to hide them from larger bluegill for which they are a favorite meal.

As you move into deep water you might find a tangle of muskgrass or bushy pondweed spread out like a carpet covering the lakebed, pierced occasionally by large pondweeds. These pondweeds are the trees of this underwater forest. Often measuring ten feet or more in height, they provide shade from the sun and places for predators to lie in wait. Here at the edge of open water crappie, walleye and other deep-water residents come to feed.

The wide variety of aquatic plants and how they arrange themselves within a lake is determined by depth, sediment type, water chemistry and color. With few exceptions, a healthy lake will have an abundant and diverse aquatic plant community - often with 30 or more species of plants coexisting in a complicated but ever shifting balance, changing from year-to-year in response to water level, temperature, amount of sunshine and other environmental factors.

Where in Marinette County?

Tell us where this photo was taken and you could win a prize!

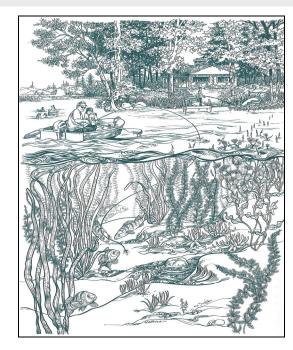
To enter, send a note including your name, address, and phone number or email awarren@marinettecounty.com. Any interesting facts about the subject are also welcome. Note that this photo is of a more historical nature, so be sure to take a close look! Correct answers will be entered in a drawing for a \$20 gift card from Wal-Mart. Please respond by July 13, 2009 to be entered in the drawing.



Congratulations to Roberta Lederman of Menomonee Falls for winning the drawing in last September's "Where in Marinette County" contest! This is the Crivitz School before multiple additions to the building, and where Roberta attended grades 1-12 and graduated in 1952. Thanks to all who participated last year – good luck to you all in 2009's contests!



A note of interest - the August 2008 "Where in Marinette County" picture was the Mundt quarry started by Matt Mattison in 1932. It is located 2 miles northeast of Amberg off of Black Sam Road. It was sold to Emil Mundt of Marinette in 1937. Thank you to Ken Mattison of Amberg for sharing this information!



So while aquatic plants can, at times, deserve the pejorative designation of "weed", they remain a necessary and important part of the lake ecosystem and should be valued for the service they provide. However, there are times when aquatic plants need to be managed. When aquatic plants conflict with our uses of a lake or when invasive species are introduced, lake residents may need to take action. In the next issue of the *Northwoods Journal* we will explore how to develop a realistic plan to manage aquatic plants in our lakes.

June is Invasive Species Awareness Month! Help "Slow the Spread"

By Robert Ruleau, Aquatic Invasive Species Coordinator

After a long, cold Northwoods winter the warm season is finally upon us. Unfortunately, aquatic invasive species (AIS) season is beginning to show in our waters as well. This is why June is designated as *Invasive Species Awareness Month*. The Wisconsin Council on Invasive Species is putting on its 5th annual program to "slow the spread" of invasive species. For more information about Invasive Species Awareness Month, visit http://invasivespecies.wi.gov/awareness/index.asp

Here at Marinette County Land and Water Conservation Division, we will be acting upon this theme by holding a variety of workshops, field trips and educational events to teach people about the impacts of AIS and how to help prevent and slow their spread. Why should we be worried about these non-native invaders? AIS are one of the principal ecological and economic threats to the waters of Marinette County.



Aquatic plants on a boat trailer

Once they become established, AIS can have many negative impacts on the local native plants and animals, and it is very costly in terms of time and money to control them. Some of the more troublesome aquatic plant and animal species here in Marinette County that have helped contribute to these negative impacts include Eurasian Water Milfoil (EWM), Zebra Mussels, Curly-Leaf Pondweed, Phragmites, Purple Loosestrife, Rusty Crayfish, Mystery Snails and the Spiny Waterflea.

Because people play a major role in the transport and spread of these species, it is important to realize that people can also help prevent the spread of AIS. Keeping our lakes and other water resources healthy and free of invaders is highly achievable through a network of concerned and dedicated individuals. This is where successful programs such as the "Citizen Lake Monitoring Workshop" and the "Clean Boats Clean Waters Volunteer Watercraft Inspection Workshop" come into play (see pages 3 & 4). These workshops are the first step in training, supporting and guiding volunteers to take care of our water resources. If you are looking for ways to get involved with AIS issues, please attend one of these LWCD sponsored workshops - both workshops are free but early registration is required.



Thanks to all the volunteers that carried out watercraft inspections and AIS lake monitoring last year. You have helped make a difference in keeping our lakes healthy, and the DNR has put some figures up on their website specific to Marinette County. Follow this link to see the 2008 Aquatic Invasive

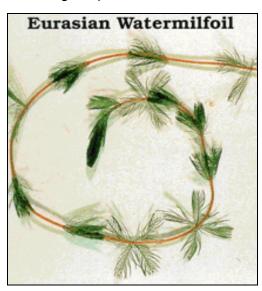


Species Report for Marinette County: http://dnr.wi.gov/invasives/aquatic/pdfs/marinette.pdf.

Along with volunteers, anglers and boaters are essential partners in helping to prevent AIS. Results from the report indicate that there still is a lack of boater awareness about Wisconsin AIS laws and regulations. Boaters surveyed did well to take basic prevention steps like removing plants and draining the water from their boats. However, habits of bait disposal, leaving waters with live catch, and washing equipment could be improved upon. This year our goal is to increase the number of boats inspected and numbers of people contacted during inspections. An increase in time spent on watercraft inspections on source waters will equate to an increase in awareness, and will no doubt help prevent the spread of harmful aquatic invasive species and keep the waters of Marinette County free of new infestations.

AIS Accomplishments of 2008

Last year Marinette County LWCD was involved in several successful AIS accomplishments (see also page 3, *LWCD Accomplishments*). There was the confirmed eradication of Hydrilla, a particularly nasty invasive aquatic plant found in a private pond near Athelstane. Nearby lakes were also checked for the presence of Hydrilla and thankfully none were found. A rapid response grant was received to treat another highly invasive and competitive aquatic plant, Eurasian Water Milfoil (EWM), found in Little Newton Lake. We will be treating the lake again this year with hopes of eradicating, or at least slowing its spread.



Beecher Lake was also the focus of EWM eradication, with the LWCD conducting an aquatic plant survey and starting an EWM management plan for the lake. EWM treatment was done last year on Beecher Lake but due to a highly competitive grant cycle, the LWCD was denied control grants for continued treatment on Beecher along with Thunder Lake and Peshtigo Flowage. We will work diligently this year to get AIS control strategies established on those waters. Marinette County LWCD was also the successful recipient of an AIS control grant, which will fund my position as AIS Coordinator (see "Who You Gonna Call?" page 2). I look forward to working with the LWCD and will work to help Marinette County be more proactive in dealing with AIS issues along with responding to existing and new infestations.

Sand Lake Conservation Camp



2008 Sand Lake Conservation Camp Participants

The fourth annual Sand Lake Conservation Camp will be held at Camp Bird from June 25-27, 2009. Youth from Wisconsin and Michigan's Upper Peninsula entering grades 6-8 in the fall are invited to participate. The fee is \$50 (\$65 after June 6th) and includes room, board, and all activities and programs. For more information and registration forms, visit online at www.marinettecounty.com. Registration deadline is June 17th.

Camp programs cover a wide variety of topics and hands-on experiences, including wildlife habitat, water quality, fisheries, forestry, and canoeing. Natural resource and education professionals teach the programs, serve as counselors, and give campers an inside look at different careers available in the natural resources and conservation field. Also new this year are the "camper's choice" activities, additional presentations campers attend in addition to regularly scheduled camp programs. Choice activity topics include GPS use, fly-fishing, primitive living skills, archery, geology, and trapping.

Several scholarships are available for Marinette County youth through the Land & Water Conservation Division; if outside Marinette County, check your local county Land Conservation Department for scholarship information. For more information or questions, please contact Anne Warren, Information & Education Specialist, at 715-732-7784 or email awarren@marinettecounty.com.

Morgan County Park Campground Improvement Projects

By Erik Aleson, Assistant Parks Administrator

This spring, some exciting development work began in the campground at Morgan Park, which is on Timm's Lake located right in the heart of northeastern Marinette County Forest. Morgan County Park (160 Acres) is in the Town of Niagara about halfway between Pembine and the City of Niagara. One of the more popular county parks, it has the second largest campground with a dump station & a youth group camp area. Morgan Park also offers a swimming beach on Timm's Lake, a large log lodge that can be rented for day use, lake and stream fishing, boat landing, playground, rock outcroppings and an overlook. The park opens May 1 and closes after deer season (end of November). The following is a short summary of the park improvement projects underway this year that should be completed by the fall of 2010.

Campground Shower/Restroom Facility

This project involves the construction on a Shower/Restroom Facility in the campground at Morgan Park. This new building would make it possible, for the first time, to provide

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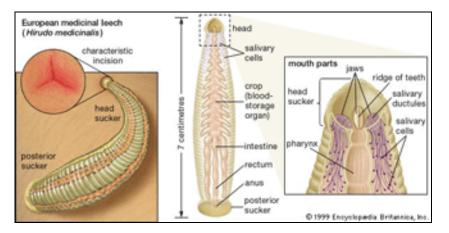
CRITTERS WE LOVE TO HATE: LEECHES

By Greg Cleereman, County Conservationist

This season's wildlife discussion will focus on four species that make our treks in the woods or waters interesting, but not in a good way. This month we begin our journey with a look at leeches. In the coming months we will also look at mosquitoes, ticks, and horse/deer flies. When we are done you probably still won't love these species, but you will understand them better and appreciate their roles in natural ecosystems.

Worldwide, there are about 650 species of leeches. The vast majority of leech species are found in cool freshwater habitats of North America and Europe. Leeches are in a class of invertebrates called *Hirudinea* that some scientists think lie between annelids (such as earthworms) and arthropods (insects and spiders) in development. They have an intermediate circulatory system that lacks blood vessels, but instead have a blood cavity called the *coelom* that runs the length of their body. The coelom also contains a spongy packing tissue that allows for the extensive compression and elongation that leeches are known for.

Where leeches differ from arthropods is that they have a *clitellum*, which arthropods never have. The clitellum is a body part that secretes a cocoon around newly produced eggs. This is something that earthworms do as well. All leeches have both male and female parts, also like earthworms. But leeches differ from "dirt" eating earthworms in that they are always carnivorous. Leeches have a cluster of photoreceptive cells in a pigmented 'cup' which collects light allowing leeches to "see" much better than earthworms, and helps them capture prey.



Life Cycle

Like many arthropods, leeches go from egg, to larvae, to adult. Upon hatching in the cocoon, the larval leeches resemble tiny eggs with mouths. Most young leeches remain in the cocoon until they metamorphose into the adult form. Cocoons contain a fluid similar to albumin (the thick, clear fluid found in bird eggs) that provides nutrients to the larval leeches. The cocoon is secreted from glands around the leech's body. Other glands fill the cocoon with albuminous fluid. The cocoon then slides off the leech's head, picking up fertilized eggs as it goes. Most leech parents attach the cocoon to a substrate, typically rock or wood, where they darken and harden. Further involvement by the parent with the cocoon varies widely by species. The blood sucking species especially provide a surprising amount of parental care.

Juvenile leeches leave the cocoon with a fixed number of segments. The segments will increase in width with age, but not in number. This is a major difference with annelids that add segments as they grow. There are two growth patterns among leeches. Predacious leeches grow continuously and feed often, due to their quick digestion. The most common pattern, however, is for the leeches to grow in spurts. These leeches have much slower digestion and can go for months between meals - during a rest period they can grow four to six times their body weight before feeding again.

Different leech species reach sexual maturity at different points in their lives. One group begins to sexually reproduce when they reach a certain body weight. They then deposit egg cocoons continually. The other strategy is to hit sexual maturity after a specific number of meals. There are several theories about how leeches mate, but the true mechanism is still unknown.

Leech Lunch

All leeches are carnivorous. Most species are predatory and will eat a wide variety of invertebrates such as worms, insect larvae, snails, etc. The predatory *Nephelopsis obscura* is probably the best known of our native leeches. You may know it better by its common name of Bait Leech. It feeds on small worms and insect larvae that it swallows whole, while other species drain their prey of body fluids and then suck in softer pieces of flesh. Mmmm, tasty!

It is the relatively few parasitic, or bloodsucking, leeches that get all the bad press. Parasitic species will suck on anything with blood, even amphibians and fish. Parasitic leeches rasp or pierce a small hole in the host's skin to feed. Since these leeches can drink 4 to 10 times their own weight in blood, it's a good thing they aren't very big. Many young parasitic leeches start out feeding on amphibians because mammal skin is too hard to penetrate. It is only the older individuals that can feed on us - these leeches wait in bottom sediment until they detect a disturbance, and then they swim over to feed. Leeches are also very good at detecting blood or sweat in the water. Their saliva is like a mini drugstore, and contains several useful chemicals to aid in feeding. The list starts with an anesthetic that keeps prey from feeling the





The leeches we usually see are the ones that feed exclusively on blood. These blood-sucking leeches will feed on mammals, fish, amphibians, and other hosts.

bite or piercing attack. The next is a spreading chemical that increases the permeability of the host's skin and helps the other chemicals work better. An anticoagulant keeps the blood from clotting inside the leech, while a vasodilator opens the capillaries to the bite area. It is the vasodilator that causes the area to bleed long after the leech has eaten its fill and left. Several leech chemicals have been patented and are being used in medicine for beneficial purposes.

Parasitic leeches can't digest their meal of blood by themselves. The keys to leech nutrition are symbiotic microflora, microscopic bacteria that live in the gut of all animals, including people. Parasitic leeches fill their crop with blood and can store it for long periods because the microflora release preservative chemicals. In the leeches' intestines, additional microflora produce specialized blood digesting enzymes.

Leech Survival

Leeches are very popular with anglers for a reason. Fish and many other species love to eat them, including the common garter snake, which are major leech predators. The most common leech defense is hiding. Leeches spend most of their time in bottom sediments and only leave to feed or hunt. Their brown color helps them blend in with the bottom. Most leeches are nocturnal, making them even more difficult to see. They use their suckers to hang on very tightly to substrate and can also flatten themselves, making it very difficult to get a grip. When caught out in the open they often form a tight ball to prevent predators from swallowing them.

Habits

Leeches greatly prefer still water, especially if it has submerged aquatic plants. Moving water is thought to give the weakly swimming leeches trouble, as well as making it difficult to anchor cocoons. Leeches can inhabit any water depth that has sufficient food and aquatic plants. They seem to tolerate water pollution well, although they are not considered biological indicators of pollution. Leeches become inactive in water temperatures below 50° F and hibernate in bottom sediment during the winter.

Hopefully this article has increased your understanding and appreciation for the lowly leech. These creatures are important predators and food sources in the food web. A few species are medically important to people that need blood circulation restored in severed appendages. This article is based on the *Natural History of Leeches* by David Ginsberg and Dr. Jack Burch.

Morgan County Park, continued from page 6

showers and flush toilets to campers or other park visitors at Morgan Park. Currently there are only pit and vault toilets throughout the park and campground. With many requests over the years, Marinette County & the public agree that this would be a wonderful addition to one of the county's largest campgrounds!

The highlight of the building, of course, will be the coin-operated showers! There will be seven showers, which will have separate outside doors so they can be used by either men or women. This should help keep any waiting lines at a minimum. The facility will provide separate men's and a women's bathrooms with flush toilets, and a universally accessible individual bathroom with a flush toilet & a shower (meets ADA disability access standards). In addition, there will be laundry room with two washing machines and dryers, a laundry detergent vending machine, and a change machine.

Morgan Park Campground Expansion

The other major development project is building another loop of campsites at Morgan Park. Currently there are 33 campsites at the Morgan Park campground. All campsites are back-in sites with electricity at each site. This campground expansion project is planned to have 10 pull-through campsites. These 10 new campsites would increase the size of the campground by almost 25% to go a long way in relieving the over crowding that has taken place in the past. The new campsites will be designed to have water and electric hookups at each site. Also provided would be a picnic table, fire ring and a grill at each site.

The highlight of this project will be the pull-through campsite design. This type of campsite will be a first in the Marinette County Parks System and, in fact, will make Morgan Park one of the few campgrounds offering pull-through sites in the northeastern part of Wisconsin.

Area Events Calendar

June-August Bands at Badger Park. Free musical entertainment, 6:30-8:30pm. All concerts held Wednesday evenings 6:30-8:30pm with concessions available at 5pm. Questions call Jenni at

715-938-0695.

Concerts in the Park. Free concerts, Thursday evenings at the Great Lakes Memorial June-August Marina Park in Menominee, MI. Contact the Marinette/Menominee Area Chamber of

Commerce at (800) 236-6681.

June-August Sunset Concert Series. Free concerts Tuesday evenings on Stephenson Island in Marinette -

contact the Marinette/Menominee Area Chamber of Commerce at (800) 236-6681.

Music & Movies in the Park. Crivitz – Thursdays throughout the summer as scheduled. June-August

Visit <u>www.crivitz.com</u> for schedule and more information.

June 6 National Trails Day. The first Saturday in June is designated as National Trails Day. On this day hikers, bikers, equestrians and others celebrate the nations trails. Visit online at

http://www.americanhiking.org/events/ntd/index.html for more information.

June 7 State Park Open House. 10:00am-2:00pm, Cookout lunch provided by Friends of Gov.

Thompson State Park. More information call 715-757-3979.

Interstate Stock & Custom Annual Car Show. Stephenson Island with registration from 7-June 13 11am and awards presentation at 2:30pm. After cruise party at the Best Western Riverfront

Inn. For more information contact Jim Armstrong at 863-3036.

6th Annual Jerry Parins Cruise for Cancer Ride. Vandervest Harley-Davidson, Peshtigo. June 13

June 18-21 Porterfield Country Music Festival. Live music, concessions, camping, top name artists. Green's Green Acres, 6 miles west of Marinette off Hwy 64. Call (715) 789-2130 or visit

www.countrymusicfestival.com.

Kids' Fishing Derby. 8am-12noon at Stephenson Island. Awards and prizes in many June 19

> categories. Co-sponsored by Marinette County Trout Unlimited. Participants should provide their own tackle and bait. No charge but pre-registration is required. Open to children ages five and up. Younger children may participate with a parent. Pre-register at Civic Center,

2000 Alice Lane. Call 732-5222 for more information.

June 26-27 Relay for Life. Sponsored through the American Cancer Society. Friday 4:00pm until

Saturday 6:00am at Marinette High School. Looking for any group wanting to form a team. Contact Ruth Thielen at 732-1554.

Annual Breakfast on the Farm. 8:00am-1:00pm rain or shine at the Rusch Family Farm,

June 28 W10420 County Rd. P in Pound, WI 54161. Kids' area, pony rides, tours, and more.

14th Annual Art for All. 10:00am-4:00pm, juried art show at Great Lakes Memorial Marina June 28

Park. Sponsored by Marinette Menominee Area Chamber of Commerce. Held rain or shine.

June 28 BAMC Menominee River Century Bike Ride. Starts at Marinette High School.

Registration June 27/3:00-6:00pm or June 28/7:00-10:00am. For more information visit www.mrcride.com or call 800-236-6681.

July 4-5 Area 4th of July Celebrations. Marinette, Crivitz, Goodman, Wausaukee. For more information, call local city hall or visit the county calendar at www.marinettecounty.com.

Harmony Arboretum Schedule of Events

7 miles west of Marinette, ½ mile south of State Highway 64 on County E. All programs are free unless otherwise stated.

May 30: Plant Sale, 9:00 a.m. to noon -Wide selection of plants grown by Northern Lights Master Gardeners Association (NLMGA). All funds raised for education programs.

June 13: Birding Hike, 6:00-8:00 a.m. -Take a guided hike to view and hear many different species of birds. See below.

June 20: Lawn Management, 9:00-11:00 **a.m.** – Lawn health can be improved with proper techniques. Scott Reuss, UWEX Horticulture Agent, will help you learn how to keep a thriving lawn this summer. Call 715-732-7510 for more information.

July 18: Harmony Open House, 9:00 a.m.-1:00 p.m. - Join UWEX and the NLMGA as they showcase the happenings at the Arboretum. Demonstrations, talks, and presentations. Call 715-732-7510 for more information



Children's Learning Garden Project in Progress at Harmony Arboretum!



Marinette County UW-Extension, the Northern Lights Master Gardeners Association, and the Marinette County Land & Water Conservation Division are in the process of creating a Children's Learning Garden at the Harmony Arboretum. The Children's Learning Garden is phase three of a seven-year Master Plan instituted in 2006. The purpose of the Children's Learning Garden is to provide an opportunity for visitors to learn about gardening and the outdoors, and to gain a better appreciation for the natural world. It will provide an opportunity to explore and observe nature in a unique, exciting, and educational manner. The experiential nature of the garden will encourage visitors to "get their hands dirty" while learning and having fun. The garden will be an ideal destination for school groups, scouts, youth organizations, day care facilties, and families looking for fun, free, educational activities. If you are interested in volunteering or donating to the Children's Learning Garden, contact Anne Warren at 715-732-7784 or email her at <u>awarren@marinettecounty.com</u>.

Annual Bird Hike at Harmony

If you enjoy listening to the birds sing each summer but don't know who is singing to you, join us Saturday, June 13, at Harmony Arboretum from 6-8 a.m. Walk the property with Greg Cleereman, County Conservationist, and learn to identify birds by sight and song. The Arboretum covers about 478 acres and encompasses habitats from prairie to upland hardwoods to shrub wetland. Over the years, we have found about 80 bird species including bobolink and blackbilled cuckoo. Bring binoculars, a field guide, waterproof footwear (for the dew), insect repellant, and your bird questions. We have a few pairs of binoculars for people in need. Our route consists of easy walking on internal roads and trails. Harmony Arboretum is located just south of Hwy 64 on County E about 7 miles west of Marinette. For more information, call the Land & Water Conservation office at 715-732-7780 or visit us online at www.marinettecounty.com.



